

01406A2

United States Patent
Rothkop

Group I: 1-10

6,914,521

II: 11-20 July 5, 2005

Visual display for vehicle

Abstract

The visual display system of the present invention includes a visual indicator having at least first and second light emitters. A controller is connected to the visual indicator. The system further includes a device for detecting a vehicular condition and is capable of transmitting a signal to the controller in response to the vehicular condition. The controller is operable to actuate the first light emitter at a first lighting characteristic and the second light emitter at a second lighting characteristic different from the first lighting characteristic in response to the signal.

Inventors: Rothkop; Jaron (Royal Oak, MI)

Assignee: Lear Corporation (Southfield, MI)

Appl. No.: 10/394,128

Filed: March 21, 2003

Current U.S. Class:340/425.5 ; 180/169; 340/435; 340/436;
340/903; 701/301

Field of Search:

340/435, 436, 438, 903, 904, 909, 943
701/300, 301, 41/180/167, 168, 169, 342/70, 71B⁺

B

G. 1

United States Patent
Sitte**5,469,150**
November 21, 1995

Sensor actuator bus system

Abstract

A four-wire bus is provided with a two-wire power bus and a two-wire signal bus and a plurality of sensors and actuators attached to both two-wire busses. A modification is provided to the standard CAN protocol developed and provided by Robert Bosch GmbH, in which the standard CAN header, of a data packet is modified to incorporate a shortened device identifier priority. By shortening the identifier field of the CAN header three bits are made available for use as a short form protocol data unit which can be used to contain binary information representing both the change of status of an identified device and the current status of the device. The same three-bit PDU can be used to acknowledge receipt of the change of status information. In order to retain all of the beneficial capabilities of the standard CAN protocol, the three-bit short form PDU can also be used to identify the use of additional bytes of a data field so that a device can take advantage of the more complex capabilities of the standard CAN protocol. However, in situations where a mere change of status report is sufficient, the present invention reduces the length of a message from a minimum of three bytes to a length of two bytes to obtain the significant benefits of increased speed of message transmission.

Inventors: **Sitte; Hans J.** (Freeport, IL)Assignee: **Honeywell Inc.** (Minneapolis, MN)Appl. No.: **08/364,061**Filed: **December 27, 1994****Current U.S.**
Class:

340/3.42 ; 340/3.1^B ; 340/3.9^B ; ~~340/870.01~~

Field of Search: 340/825.07, 825.06, 870.01, 870.16, 870.17, 34R, 31A, 825.08
371/8.2 370/85.1

Gr. 1**United States Patent
Keck****6,619,118
September 16, 2003**

Monitoring system**Abstract**

A monitoring system such as a septic tank monitoring system for distinguishing between and identifying the location of a sedimentary layer, a scum layer, and any intervening liquid zone in a septic tank with an elongate

disposed along the sensing probe, and a remote monitor operably associated with the plurality of sensors for providing a remote indication to a septic tank operator of the location of the sedimentary layer, the scum layer, and any intervening liquid zone in the septic tank based on the signals from the plurality of sensors so that a septic tank operator can monitor the contents and condition of the septic tank without a need for excavating and physically inspecting the septic tank.

Inventors: Keck; James C. (Andover, MA)

Assignee: SepSensor Inc. (Andover, MA)

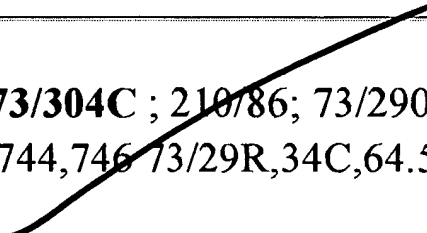
Appl. No.: 10/132,581

Filed: April 25, 2002

Current U.S. Class:

Field of Search:

**73/304C ; 210/86; 73/290R
210/86,744,746 73/29R,34C,64.55**



101405812
Group II / 78B, 80C
91F, 99E

United States Patent

6,397,615

Kawai, et al.

B: 374/132

June 4, 2002

Vehicle air conditioner with non-contact temperature sensor**Abstract**

A vehicle air conditioner has a non-contact temperature sensor for detecting a surface temperature of a detection range of a passenger compartment. The detection range includes a first detection portion in which a surface temperature is changed to approximately correspond to an inside air temperature, a second detection portion in which a surface temperature is changed in accordance with an outside air temperature, and a third detection portion in which a surface temperature is changed in accordance with a sunlight amount entering the passenger compartment. In the vehicle air conditioner, a target temperature of air blown into the passenger compartment is calculated based on a set temperature and a surface temperature from the non-contact temperature sensor, while air-conditioning performance is improved.

Inventors: **Kawai; Takayoshi** (Hoi-gun, JP), **Kajino; Yuichi** (Nagoya, JP), **Ichishi; Yoshinori** (Kariya, JP), **Kamiya; Toshifumi** (Takahama, JP), **Sugi; Hikaru** (Nagoya, JP), **Harada; Shigeki** (Toyota, JP), **Kuribayashi; Nobukazu** (Kariya, JP), **Kumada; Tatsumi** (Gamagori, JP), **Yamaguchi; Akira** (Chiryu, JP), **Tomita; Hiroyuki** (Nagoya, JP)

Assignee: **Denso Corporation** (Kariya, JP)

Appl. No.: **09/633,426**

Filed: **August 7, 2000**

Foreign Application Priority Data

Aug 26, 1999 [JP]	11-240176
Sep 28, 1999 [JP]	11-274726
Nov 10, 1999 [JP]	11-320194
Mar 16, 2000 [JP]	2000-079357

Apr 03, 2000 [JP]

2000-105380

Current U.S. Class:

Current International Class:

Field of Search:

~~62/244~~^B; 236/91^C
B60H 1/00 (20060101)
236/91^C, 1R, 51 374/1^B21, 132

G. II

United States Patent

5,293,928

Iida, et al.

March 15, 1994

Air-conditioner for automobiles

Abstract

An automobile air-conditioner wherein a controlled variable used to determine the control mode of a component of the air-conditioner is corrected or restricted according to the amount of shifting of the head part setting temperature for driving the component of the air-conditioner based on the corrected or restricted controlled variable. With this arrangement, an occupant of the automobile senses an enhanced change of the air-conditioning operation when the head part setting temperature is changed.

Inventors: **Iida; Katsumi** (Konan, JP), **Sakurai; Yoshihiko** (Konan, JP),
Takano; Akihiko (Konan, JP), **Yamaguchi; Hideo** (Fuchu, JP),
Yano; Teruaki (Fuchu, JP)

Assignee: **Zexel Corporation** (Tokyo, JP)
Mazda Motor Corporation (Hiroshima, JP)

Appl. No.: **08/071,001**

Filed: **June 4, 1993**

Related U.S. Patent Documents

<u>Application Number</u>	<u>Filing Date</u>	<u>Patent Number</u>	<u>Issue Date</u>
640631	Jan., 1991	5244035	

Foreign Application Priority Data

Jan 24, 1990 [JP]	2-14068
Jan 24, 1990 [JP]	2-14069

Current U.S. Class:

~~165/204~~; ~~165/249~~; ~~165/43~~⁴²; ~~236/13~~; ~~236/91E~~^{99E};
~~236/91F~~; ~~237/2A~~; ~~62/180~~; ~~62/203~~; ~~62/228.5~~;
62/244

B

Current International Class:

B60H 1/00 (20060101)

Field of Search:

165/42,43,16,22 236/91E,91F
237/2A,12.3R,12.3B,123A
62/228.5,203,244,179,180

United States Patent
Kamiya , et al.

6,202,934
March 20, 2001

Air conditioner for a vehicle having infrared ray sensor

Abstract

An air conditioner for a vehicle which accurately estimates a thermal load to enhance inside temperature controllability. The air conditioner comprises a first surface temperature sensor for detecting a temperature of an internal surface region of a vehicle compartment which varies with a temperature of an external surface of a vehicle, and a second surface temperature sensor for detecting a temperature of a surface region which varies with an intensity of solar radiation intruding into the vehicle compartment. A target blowout air temperature is calculated using input signals including surface temperature signals detected by these sensors. Thus, intrusion heat (thermal load) due to a difference between an inside air temperature and a compartment internal surface temperature can be directly estimated to enable accurate thermal load calculation. Further, intrusion heat (thermal load) due to solar radiation into the vehicle compartment can be estimated using a temperature of an internal surface region which varies with solar radiation, thereby making it possible to carry out thermal load calculation with high accuracy.

Inventors: Kamiya; Toshifumi (Takahama, JP), Kawai; Takayoshi (Hoi-gun, JP), Ichishi; Yoshinori (Kariya, JP), Kajino; Yuichi (Nagoya, JP), Ohga; Akira (Kariya, JP), Nishii; Katsuyoshi (Okazaki, JP), Ando; Hiroshi (Nagoya, JP)

Assignee: Denso Corporation (Kariya, JP)

Appl. No.: 09/652,546

Filed: August 31, 2000

Foreign Application Priority Data

Sep 03, 1999 [JP]	11-250792
Oct 25, 1999 [JP]	11-302703
Jun 21, 2000 [JP]	12-186317

Current U.S. Class:

~~236/91C~~; 165/204; 165/291; 236/51;
236/91E; 454/75 C

Current International Class:

B60H 1/00 (20060101)

Field of Search:

236/49.3,91C,91F,51,91E 454/75
62/186,203,208,209,244
165/202,203,204,288,291